

REMARKS

The title of the invention was objected to as not descriptive. A new title has been substituted for the objected title.

The disclosure was objected to because of informalities. The disclosure has been corrected to overcome the objection.

Claims 1, 2, 4-6, 8, 13, 15, 17, 21-24, 27, 29, and 30 were rejected under 35 U.S.C. 102(b) as being anticipated by Husher; claims 3, 7, 10, 14, 25, 26, and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Husher; and claims 9, 11, 12, 16, 18, 19, and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Husher as applied to claim 8 above and further in view of S.M. Sze, Semiconductor Devices, Physics and Technology.

Independent claim 1 requires five elements. A semiconductor substrate, a first layer in a fixed physical relation to the semiconductor substrate, a well formed in the first layer, a first enclosure surrounding the well, and a second enclosure surrounding the side and bottom dimension of the first enclosure. With reference to Figure 2(c) The second enclosure comprising 32b, 24, and 32b is clearly separate from the substrate 22. The Husher patent (5,179,432) cited by the examiner does not have the five elements required by independent claim 1. Here the examiner has included the second enclosure with the substrate. Independent claim 1 and Figure 2(c) of the instant disclosure does not support this interpretation. As such independent claim 1 and dependent claims 2 through 21 are allowable over the Husher patent.

Similarly independent claim 22 is a method claim for forming a structure with five elements. The examiner's interpretation of the Husher patent contains four elements and claim 22 is therefore allowable over the Husher patent. Dependent claims 23-30 which depend from claim 22 are also allowable over the Husher patent.

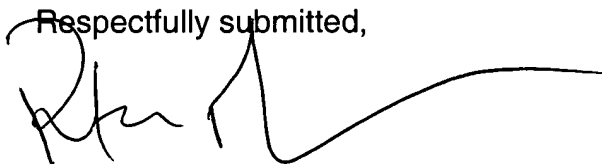
In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant response places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made.**"

To the extent necessary, Applicants petition for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Peter K. McLarty', with a long horizontal flourish extending to the right.

Peter K. McLarty
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Version with Markings to Show Changes Made

-- Figure 2a illustrates a cross-sectional view of a preferred embodiment PNP transistor 20 after some initial fabrication steps. In Figure 2a, transistor 20 is formed from a p-type substrate [20] 22 which, due to its conductivity type, is labeled generally with a P designation. An n-type buried layer 24 is formed overlying p-type substrate 22, and due to its conductivity type layer 24 is labeled generally with an N designation. N-type buried layer 24 is preferably formed by masking the upper surface of substrate 22 and then implanting an appropriate n-type dopant, such as arsenic or antimony, into that upper surface. By way of a preferred example, the antimony is implanted at a dosage of $5e^{15}/cm^2$ and at an energy of 60 keV. Note that the doping concentration is relatively high and, thus, n-type buried layer 24 is labeled with an N+ designation. In addition, a subsequent diffusion step is performed after the implant, such as by way of a heating (e.g., annealing) process. Finally, note that layer 24 is referred to as a "buried layer" instead of a well because an additional semiconductor layer is formed on top of it as shown in later figures. However, the phrase "buried layer" should not unnecessarily limit the range of the inventive scope and, indeed, a layer of the type as layer 24 may be referred to in the art using other terminology. To the extent that other terms are consistent with the formation and function of buried layer 24 as described in this document, then they too are intended within the present inventive scope. --

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